

**ABSTRACT****VIBRATORY IN-PLANE TUNNELLING GYROSCOPE**

A gyroscope comprising: a proof mass; a frame supporting the proof mass; a connection arrangement connecting the proof mass and the frame, the connection arrangement having a first stiffness in a first direction and a second stiffness in a second direction substantially perpendicular to the first direction, one of the stiffness being significantly greater than the other stiffness; and a pair of elements adapted to sense relatively motion therebetween in either the first or the second direction. Also disclosed is a gyroscope comprising: a proof mass; a frame supporting the proof mass and connected to only one edge thereof by a connection arrangement extending between the proof mass and the frame in a first direction, the connection arrangement having a first stiffness in the first direction and a second stiffness in a second direction substantially perpendicular to the first direction, the first stiffness being significantly greater than the second stiffness; and a pair of elements adapted to sense relative motion therebetween in the first direction.

Figure 1